L Number	Hits	Search Text	DB	Time stamp
1	4	(solder adj ball) with ramp	USPAT;	2001/10/25
-	<u>-</u>		US-PGPUB;	10:48
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
8	0	(solder adj ball) same ramp same	USPAT;	2001/10/25
0	J	reservoir	US-PGPUB;	10:49
		16861 VOII	EPO; JPO;	10140
			DERWENT;	
			IBM TDB	
45	43	(coldered ball) some dispenses		2001/10/25
15	43	(solder adj ball) same dispenser	USPAT;	
	•		US-PGPUB;	10:50
			EPO; JPO;	
		·	DERWENT;	
		, , , , , , , , , , , , , , , , , , , ,	IBM TDB	0004/40/0-
22	26	(solder adj ball) with dispenser	USPAT;	2001/10/25
			US-PGPUB;	10:51
			EPO; JPO;	٠,
			DERWENT;	
			IBM TDB	
29	15	(solder adj ball) near3 dispenser	USPAT;	2001/10/25
			US-PGPUB;	11:19
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
36	22	(ball near3 dispenser) same ramp	USPAT;	2001/10/25
			US-PGPUB;	12:48 _{23 199}
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
43	1	("4934309").PN.	USPAT	2001/10/25
	-	(130 1300)		12:54
_	787	(("228/20.1") or ("228/33") or ("228/41") or	USPAT	2001/10/25
		("228/45")).CCLS.	JOI AT	10:46
_	400	(solder near2 ball) and vacuum and gas	USPAT	2001/10/17
	400	(Soluei lieal 2 ball) allu vacuulii allu gas	USFAI	16:37
	19	((("228/20.1") or ("228/33") or ("228/41") or	USPAT	2001/10/17
-	19	1, 111	USPAI	
		("228/45")).CCLS.) and ((solder near2 ball)		16:37
	2466	and vacuum and gas)	HCDAT-	2004/40/47
•	3460	(cobbley ball waddel).in.	USPAT;	2001/10/17
			US-PGPUB;	16:37
		ı	EPO; JPO;	
			DERWENT;	
			IBM TDB	
-	463	(solder near2 ball) and vacuum and gas	USPAT;	2001/10/17
			US-PGPUB;	16:38
			EPO; JPO;	• •.
			DERWENT;	
			IBM TDB	•

•	2	((cobbley ball waddel).in.) and ((solder near2 ball) and vacuum and gas)	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2001/10/17 16:47
-	1856	ball with suction	IBM TDB USPAT	2001/10/17 16:48
-	31	((("228/20.1") or ("228/33") or ("228/41") or	USPAT	2001/10/17
-	9	("228/45")).CCLS.) and (ball with suction) (("5088639") or ("5284287") or ("5445313") or ("5467913") or ("5615823") or ("5680984") or ("5685477") or ("5687901") or ("5695667")).PN.	USPAT	16:48 2001/10/17 17:07
-	861	(pick-up (pick adj up)) near2 ball	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:46
•	58	(positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:20
-	5	(("5788313") or ("5445313")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:21
•	0	((pick-up (pick adj up)) near2 ball) and ((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) and ((("5788313") or ("5445313")).PN.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:42
•	1	((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) and ((("5788313") or ("5445313")).PN.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:22
-	2	(("5788313") or ("5445313")).PN.	USPAT	2001/10/1 <u>8</u> 10:21
-	1	((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) and ((("5788313") or ("5445313")).PN.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:22
-	2	(("5445313") or ("5788143")).PN.	USPAT	2001/10/18 10:22
-	2	((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) and ((("5445313") or ("5788143")).PN.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2001/10/18 10:23

4	((pick-up (pick adj up)) near2 ball) and ((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball))	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2001/10/18 10:43
92	((pick-up (pick adj up)) near2 ball) and heat\$5	USPAT; US-PGPUB;	2001/10/18 10:44
68	((pick-up (pick adj up)) near2 ball) and	DERWENT; IBM TDB USPAT;	2001/10/18
	screen\$5	EPO; JPO; DERWENT;	10:44
52	((pick-up (pick adj up)) near2 ball) and ramp	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2001/10/18 10:44
238	((pick-up (pick adj up)) near2 ball) and (axis axes)	IBM TDB USPAT; US-PGPUB; EPO; JPO;	2001/10/18 10:45
30	(((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and (axis axes))	IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2001/10/18 10:45
3	(((pick-up (pick adj up)) near2 ball) and screen\$5) and ((((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and (axis axes)))	IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2001/10/18 10:45
3	((pick-up (pick adj up)) near2 ball) with heater	IBM TDB USPAT; US-PGPUB; EPO; JPO;	2001/10/18 10:50
6	((pick-up (pick adj up)) near2 ball) with screen\$4	IBM TDB USPAT; US-PGPUB; EPO; JPO;	2001/10/18 10:47
2	((pick-up (pick adj up)) near2 ball) with	DERWENT; IBM TDB USPAT;	2001/10/18
	92 68 52 238 30	((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) ((pick-up (pick adj up)) near2 ball) and heat\$5 ((pick-up (pick adj up)) near2 ball) and screen\$5 ((pick-up (pick adj up)) near2 ball) and ramp ((pick-up (pick adj up)) near2 ball) and (axis axes) (((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and screen\$5 and (((pick-up (pick adj up)) near2 ball) and screen\$5) and (((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and (axis axes))) ((pick-up (pick adj up)) near2 ball) and (axis axes))) ((pick-up (pick adj up)) near2 ball) with heater	((positive near2 pressure) and ((negative near2 pressure) vacuum\$3 suction\$3) and (solder\$3 near2 ball)) 92 ((pick-up (pick adj up)) near2 ball) and heat\$5 88 ((pick-up (pick adj up)) near2 ball) and screen\$5 ((pick-up (pick adj up)) near2 ball) and ramp 92 ((pick-up (pick adj up)) near2 ball) and ramp 93 ((pick-up (pick adj up)) near2 ball) and (axis axes) 94 ((pick-up (pick adj up)) near2 ball) and (axis axes) 95 ((pick-up (pick adj up)) near2 ball) and (axis axes) 96 ((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and screen\$5) and (((pick-up (pick adj up)) near2 ball) and screen\$5) and (((pick-up (pick adj up)) near2 ball) and heat\$5) and (((pick-up (pick adj up)) near2 ball) and (axis axes))) 97 ((pick-up (pick adj up)) near2 ball) and (pick-up (pick adj up)) near2 ball) and ((pick-up (pick adj up)) near2 ball) and ((pick-up (pick adj up)) near2 ball) and ((pick-up (pick adj up)) near2 ball) with heater 98 ((pick-up (pick adj up)) near2 ball) with screen\$4 99 ((pick-up (pick adj up)) near2 ball) with screen\$4 90 ((pick-up (pick adj up)) near2 ball) with screen\$4 90 ((pick-up (pick adj up)) near2 ball) with screen\$4

-	11	(((pick-up (pick adj up)) near2 ball) with heater) (((pick-up (pick adj up)) near2 ball)	USPAT; US-PGPUB;	2001/10/18 10:47
		with screen\$4) (((pick-up (pick adj up))	EPO; JPO;	• • • • • • • • • • • • • • • • • • • •
		near2 ball) with ramp)	DERWENT; IBM TDB	
-	18	((pick-up (pick adj up)) near2 ball) with	USPAT;	2001/10/18
		(axis axes)	US-PGPUB;	11:53
			EPO; JPO; DERWENT;	
			IBM TDB	
-	6353	(pick-up (pick adj up)) with (axis axes)	USPAT;	2001/10/18
			US-PGPUB;	10:54
		,	EPO; JPO; DERWENT;	
			IBM TDB	
-	10	((pick-up (pick adj up)) with (axis axes))	USPAT;	2001/10/18
		and (solder\$ near2 ball)	US-PGPUB;	10:55
			EPO; JPO; DERWENT;	
			IBM TDB	
-	107	((pick-up (pick adj up)) near2 (tool head))	USPAT;	2001/10/18
		with ball	US-PGPUB; EPO; JPO;	11:57
			DERWENT;	
			IBM TDB	
-	39	(((pick-up (pick adj up)) near2 (tool head))	USPAT;	2001/10/18
		with ball) and (rotate rotating rotatable	US-PGPUB; EPO; JPO;	12:03
		movable axis axes)	DERWENT;	
			IBM TDB	
•	203	(solder near2 ball) with load\$4	USPAT;	2001/10/18
			US-PGPUB; EPO; JPO;	15:45
			DERWENT;	
			IBM TDB	
•	787	(("228/20.1") or ("228/33") or ("228/41") or	USPAT	2001/10/18
_	88	("228/45")).CCLS. (solder near2 ball) with load\$4	USPAT	16:03 2001/10/18
-	30	Council House wally strain towards		15:45
-	9	((("228/20.1") or ("228/33") or ("228/41") or	USPAT	2001/10/18
		("228/45")).CCLS.) and ((solder near2 ball) with load\$4)		15:49
•	1	((solder adj ball) with (feed\$4 load\$4)) and	USPAT;	2001/10/18
		ramp	US-PGPUB;	15:56
			EPO; JPO;	
			DERWENT;	
-	332	(solder adj ball) with (feed\$4 load\$4)	USPAT;	2001/10/18
			US-PGPUB;	15:58
			EPO; JPO; DERWENT;	
			IBM TDB	

•	21	((("228/20.1") or ("228/33") or ("228/41") or	USPAT;	2001/10/18
		("228/45")).CCLS.) and ((solder adj ball)	US-PGPUB;	16:01
		with (feed\$4 load\$4))	EPO; JPO;	
			DERWENT;	
			IBM TDB	
•	2336	ramp with valve	USPAT;	2001/10/18
		•	US-PGPUB;	16:02
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
	520	(ramp with valve) and ball	USPAT;	2001/10/18
			US-PGPUB;	16:02
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
_	213	(ramp with valve) same ball	USPAT;	2001/10/18
			US-PGPUB;	16:02
			EPO; JPO;	
	!		DERWENT;	
			IBM TDB	:
_	1302	(("228/20.1") or ("228/33") or ("228/41") or	USPAT;	2001/10/18
_ _	1002	("228/45")).CCLS.	US-PGPUB;	16:03
		(220,40),100201	EPO; JPO;	
			DERWENT;	
			IBM TDB	
_	0	((ramp with valve) same ball) and	USPAT;	2001/10/18
_		((("228/20.1") or ("228/33") or ("228/41") or	US-PGPUB;	16:03
		("228/45")).CCLS.)	EPO; JPO;	
			DERWENT;	
			IBM TDB	
_	2	((ramp with valve) same ball) and	USPAT;	2001/10/18
		solder\$4	US-PGPUB;	16:03
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
	,	1	,	1